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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/837,190	04/19/2001	Hideki Sawada	2000P120495	1193

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EXAMINER	
VENT, JAMIE J	
ART UNIT	**PAPER NUMBER**
2616	

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/837,190	SAWADA, HIDEKI	
	Examiner	Art Unit	
	Jamie Vent	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 April 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 April 2001* is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *04/19/2001*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al (US 5,966,495) in view of Tanaka et al (US 6,163,646).

[claim 1]

In regard to Claim 1, Takahashi et al discloses a real time recording/reproducing system for converting an analog image signal in an analog-to-digital converter (ADC) to digital data, recording the digital data in a recorder, reading out the digital data recorded in the recorder and converting the read-out digital data in a digital-to-analog converter (DAC) to analog data to be outputted (Column 5 Lines 35+ through Column 6 Lines 1-67 describes the recording/reproducing system), the real time recording/reproducing system comprising:

- a first frame memory for storing the output of the ADC (Figure 1 shows a first frame memory 18 for storing the output of the ADC);
- a compression processing module for compressing the output of the first frame memory (Figure 1 shows the compressing circuits 10 and 11 as further described in Column 5 Lines 45-55);

- a decompression processing module for decompressing the digital data read out from the recorder (Figure 1 shows a decompressing/expanding circuits 24 and 25 as further described in Column 5 Lines 45-55); however, fails to disclose
    - a second frame memory for storing the output of the decompression processing module and outputting the stored data to the DAC; and
    - a frame rate controller for controlling the compression processing module.

Tanaka et al discloses an apparatus for synchronizing the playback of audio and video signals wherein a second frame memory is used for storing the decompressed data before outputting to the DAC. This process is seen in Figure 1 wherein the compressed data buffers 11 and 21 store the information before outputting to the decoders 12 and 22 for converting the signal to an analog signal as further described in Column 4 Lines 25-40. The additional frame memory of the storage of the decompressed data will allow the synchronization of the output of data. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the recording/reproducing apparatus, as disclosed by Takahashi et al, and further incorporate a system wherein a second frame memory is available for storing the decompressed data before outputting to the DAC, as disclosed by Tanaka et al.

2. Claims 2,3,4, 6, and 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al (US 5,966,495) in view of Tanaka et al (US 6,163,646) in further view of Honda et al (US 2004/0240744).

[claims 2 & 6]

In regard to Claims 2 and 6 discloses a synchronizing playback system, as previously recited in Claim 1; however fails to disclose the additional limitation of a frame rate controller for controlling the frame rate of the compression processing module to be constant by executing a frame interpolating process. Honda et al discloses an image data compression system wherein the frame rate of the compression module is controlled by the constant executing a frame rate interpolating process as seen in Figure 18 and further described in paragraphs 0025,0034, and 101-103. The frame rate being kept constant through interpolating process generates digital data in a more effective manner without losing data. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the synchronizing of data system, as disclosed by Takahashi et al in view of Tanaka et al, and further incorporate a system wherein the frame rate is kept constant by a frame interpolating process, as disclosed by Honda et al.

[claim 3]

In regard to Claim 3 discloses a synchronizing playback system, as previously recited in Claim 1; however, fails to disclose with the additional limitation of a decompression processing module for decompressing the digital data read out from the recorder and executing a frame skipping processing when it becomes unable to execute full frame

time decompression. Honda et al discloses a system wherein the decompression module reads out from the recorder and executes frame skipping as further described in Paragraphs 0067-0072. The frame skipping when it becomes unable to execute a full frame during decompression allows for the digitizing of the signal in a more efficient and effective manner. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the synchronizing of data system, as disclosed by Takahashi et al in view of Tanaka et al, and further incorporate a system wherein the frame skipping occurs during the decompressing when a full frame rate unable to occur, as disclosed by Honda et al.

[claims 4 & 7]

In regard to Claims 4 and 7, Takahashi et al in view of Tanaka et al, discloses a synchronizing time recording/reproducing system; however, fails to discloses a frame thinning-out in the decompression processing module and the frame skipping in the decompression processing module are performed preferentially from frame-interpolation frames to generate digital compressed data involving much motion. Honda et al discloses an image data decompression system wherein frames are thinned out during decompression processing and furthermore can be performed from frame-interpolation frame as disclosed in Paragraphs 0071-0074. Thereby providing a process to do real-time recording and synchronizing the reproduction of the data. Therefore, it would have been obvious to one of ordinary skill in the art to modify the synchronizing of data system, as disclosed by Takahashi et al in view of Tanaka et al, and further incorporate

a system wherein frame thinning-out is used for synchronization purposes, as disclosed by Honda et al.

3. Claims 5 and 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al (US 5,966,495) in view of Tanaka et al (US 6,163,646) in further view of Honda et al (US 2004/0240744) in further view of Fujinami et al (US 6,697,566).

[claims 5 & 8]

In regard to Claims 5 and 8, Takahashi et al in view of Tanaka et al in further view of Honda et al, discloses a synchronizing time recording/reproducing system; however, discloses a real time recording/reproducing system wherein the compression processing modules adds data bit stream data including a picture header representing the start of a frame compression code, a user data representing a thinned-out frame and a reference frame code representing the same frame as a reference frame. Fujinami el discloses a system wherein signals are encoded with the characteristic recording information and furthermore added to the data bit stream as disclosed in Column 26 Lines 50+ through Column 27 Lines 1-25. The addition of the picture header frame representing the start of the compression code further allows for synchronization of data. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the synchronizing recording/reproducing system, as disclosed by Takahashi et al in view of Tanaka et al in further view of Honda et al, and incorporate the addition of picture headers regarding various information regarding the compression times, as disclosed by Fujinami et al.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Oku et al (US 6710817);
- Kim (US 6862402).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamie Vent whose telephone number is 571-272-7384. The examiner can normally be reached on 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Groody can be reached on 571-272-7950. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jamie Vent
07/08/05

James J. Groody
Supervisory Patent Examiner
Art Unit 262 2616